

## Alpha-Beta Probes

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### AB1, AB2

A dual ZnS/BC408 phosphor in a 1 inch diameter scintillation probe, the AB1 is ideal for alpha/beta discrimination tests. AB2 is a version fitted with a 2 inch diameter phosphor.

- AB1, AB2 connector: MHV.

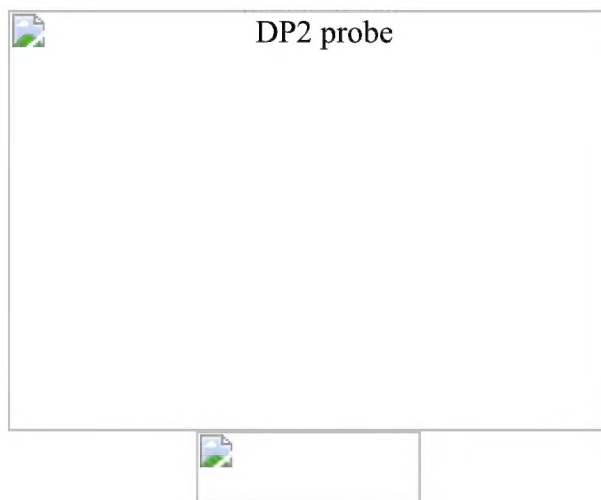


AB1 probe

### AB50

Large area, dual (ZnS/BC408) scintillation probe used to detect and discriminate alpha and beta radiations.

- <3% efficiency crossover from alpha into beta channel using an [Analyst](#) rate meter
- Phosphor response uniformity within  $\pm 10\%$  for alpha and high energy beta
- Connector: MHV.



### DP2/4A, DP2R/4A, IDP2B, IDP2RB

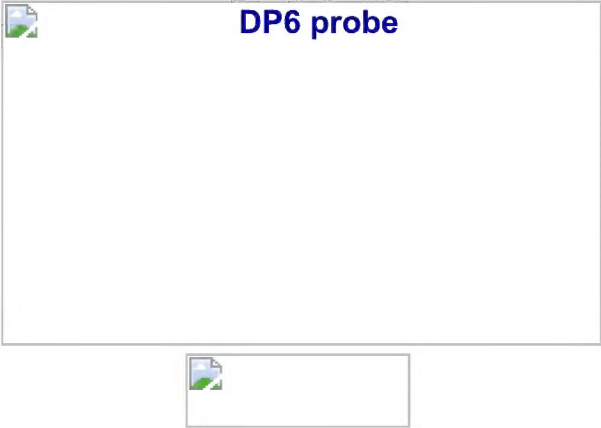
General purpose dual phosphor (ZnS/BC408) probe which responds to alpha, medium and high energy beta and gamma. Used by nuclear sites, survey, environmental and government radiation laboratories, emergency services and the petrochemical industry.

- Compact, reasonably robust, ergonomic shape
- Rugged 3 mm mesh grille version, DP2R/4A
- DP2/4A, DP2R/4A connector: PET
- 241Am alpha calibration source: RRS21A
- 36Cl beta calibration source: RRS24A

### DP6 range, DP6R range, IDP6B

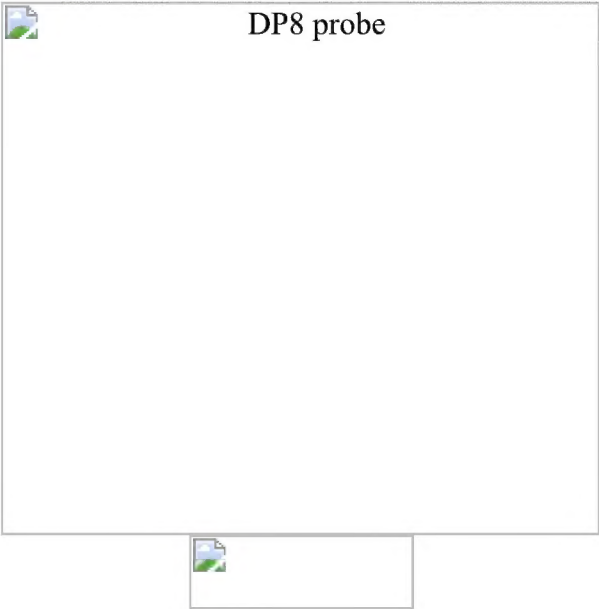
Large, dual phosphor (ZnS/BC408) scintillation probes in light alloy housings, for monitoring personnel, tools and work areas with efficient alpha/beta discrimination.

- Light weight, slim, wedge profile
- Durable hex grille and field replaceable windows provide high reliability
- DP6R range: fitted with extra-rugged hex grille
- DP6AD, DP6RAD connector: PET
- DP6BD, DP6RBD connector: MHV
- DP6CD, DP6RCD: These probes feature signal gain adjustment to permit operation with rate meters whose HV supply is fixed at 900 V. Users can upgrade from a GM probe to these probes without having to replace their rate meter.
- DP6DD: premium performer with extra-reinforced window frame and MHV connector
- Calibration sources  
241Am alpha, code RRS 51A,  
36Cl beta, code RRS 54A,  
90Sr/90Y beta, code RRS 55A.

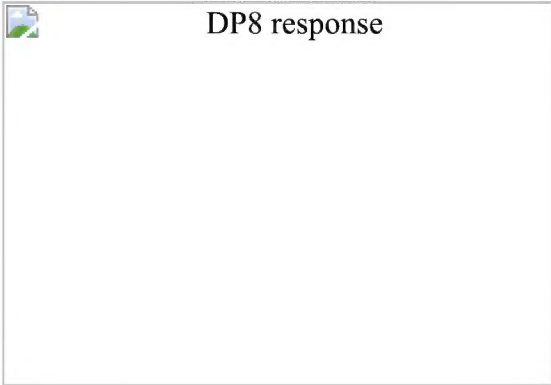


**DP8A**

Largest dual phosphor scintillation probe manufactured, used for alpha and beta monitoring of large flat surfaces: walls, floors and other objects.



- High sensitivity to distributed contamination
- Durable, light weight - only 1.5 kg (3.3 lb)
- Connector: PET
- 241Am alpha calibration source, RRH 11B
- 36Cl beta calibration source, RRH 14B.



**Comparison Table**

		Efficiencies (% Surface Emission)	Background	137Cs (gamma) Response	Weight
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Order Code	Radiation Window														
	Area	Shape	Alpha			Beta			cps	cpm	cps per $\mu\text{Sv/h}$	cpm per 100 $\mu\text{R/h}$		kg	lb
	(cm <sup>2</sup> )		<sup>230</sup> Th	<sup>241</sup> Am	<sup>99</sup> Tc	<sup>60</sup> Co	<sup>36</sup> Cl	<sup>90</sup> Sr/ <sup>90</sup> Y				Ch.1	Ch.2		
AB1	5	disc	>= 50%		25%			45%				100	10	0.235	0.5
AB2	20	disc	>= 50%		25%			45%				100	10	0.235	0.5
AB50	50	rectangle	>= 45%		25%		45%					3000		0.76	1.7
DP2/4A	50	square		35%		9%	29%	34%	4	240	25	1500		0.75	1.7
DP2R/4A	50	square		25%		7%	21%	24%	4	240	25	1500		0.75	1.7
DP6AD } DP6BD }	100	rectangle		35%		18%	38%	41%	6	360	50	3000		0.5	1.1
DP6CD	100	rectangle		30%	14%		30%	31%	6	360	50	3000		0.5	1.1
DP6DD	100	rectangle		39%		20%	38%	40%	4	240	40	2400		0.5	1.1
DP8A	600	rectangle		28%		12%	31%	36%	20	1200	180	10800		1.55	3.5

